AUTODOC CLUB

How to change front coil springs on **Nissan Leaf ZE0** – replacement guide

VIDEO TUTORIAL



Important!

This replacement procedure can be used for:
NISSAN Leaf II (ZE1) Electric

The steps may slightly vary depending on the car design.

REPLACEMENT: COIL SPRINGS – NISSAN LEAF ZE0. TOOLS YOU NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #21
- Drive socket # 13
- Drive socket # 18
- Drive socket # 21
- HEX bit no.H6.
- Wheel impact socket #21
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Rubber mallet
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

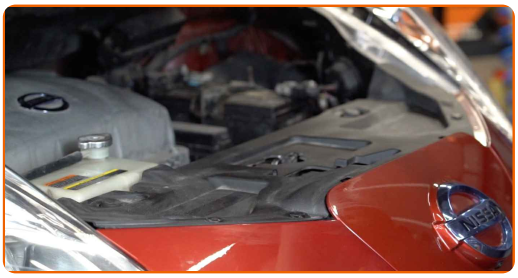
BUY TOOLS

Replacement: coil springs – Nissan Leaf ZE0. AUTODOC experts recommend:

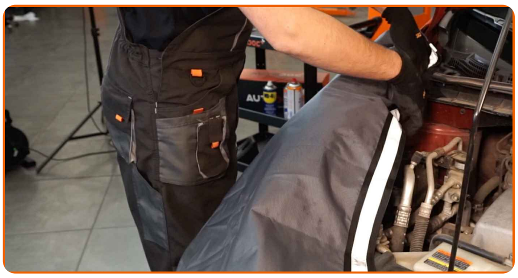
- Both coil springs of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right coil springs of the front suspension.
- All work should be done with the engine stopped.

REPLACEMENT: COIL SPRINGS – NISSAN LEAF ZE0. USE THE FOLLOWING PROCEDURE:

1 Open the bonnet.



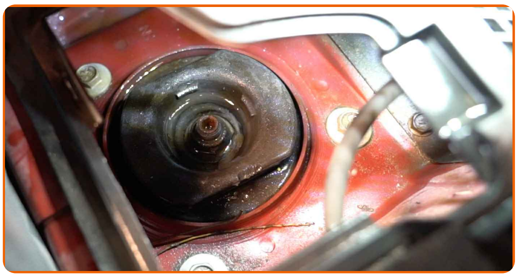
2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.



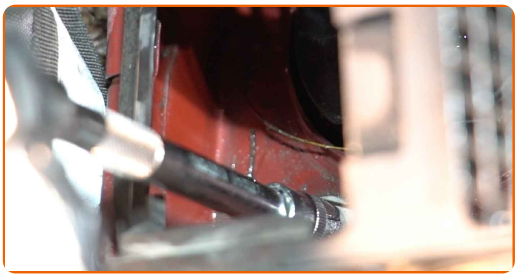
3 Raise up and remove the cowl grille.



4 Clean the fasteners of the shock strut upper mount. Use WD-40 spray.



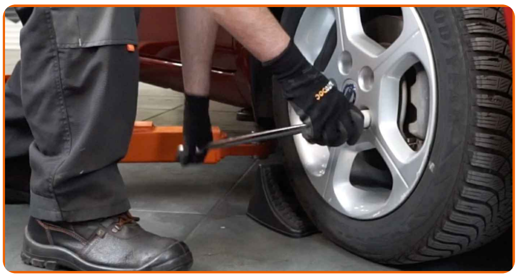
5 Loosen the upper fastener of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.



6 Secure the wheels with chocks.



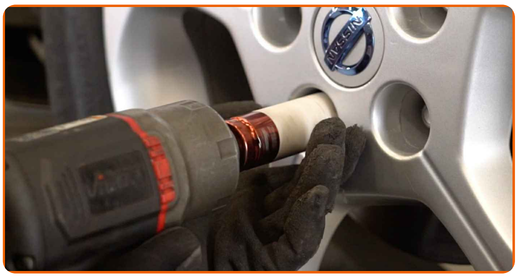
7 Loosen the wheel mounting bolts. Use wheel impact socket #21.



8 Raise the front of the car and secure on supports.



9 Unscrew the wheel bolts.



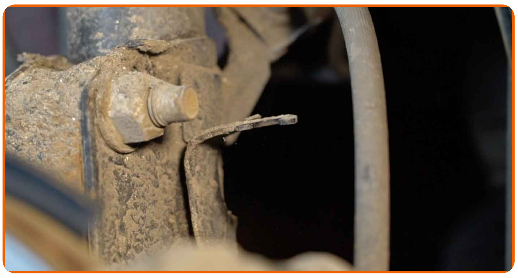
Replacement: coil springs – Nissan Leaf ZE0. Tip from AUTODOC:

- To avoid injury, hold up the wheel when unscrewing the bolts.

10 Remove the wheel.



11 Remove the brake hose retaining clip.



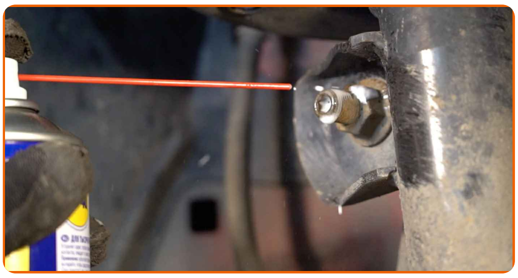
12

Disconnect the wiring and the brake hose from the bracket on the shock strut. Use a crowbar.



13

Clean the fasteners connecting the stabiliser link to the shock strut, and those connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



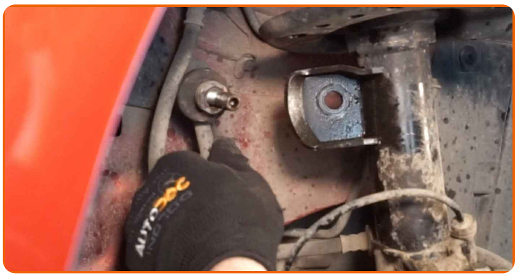
14

Unscrew the nut and remove the stabilizer rod from the shock strut. Use a drive socket #18.

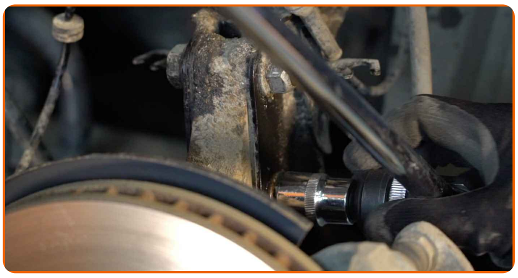


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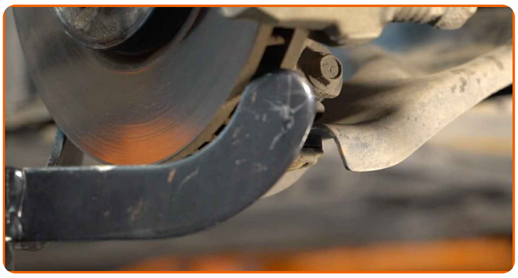
Remove the stabilizer rod.



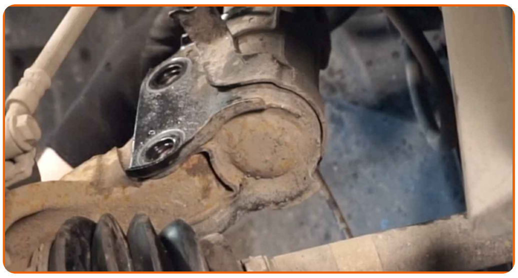
16 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #21. Use a drive socket #21. Use a tap wrench.



17 Prop up the steering knuckle. Use a hydraulic transmission jack.



18 Remove the fastening bolts.



19 Disconnect the steering knuckle from the shock absorber strut.



20

Unscrew the top fastening of the shock strut mount. Use a drive socket #13.

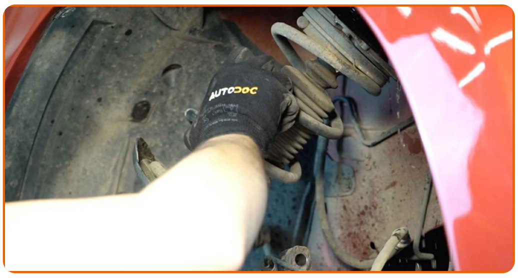


AUTODOC recommends:

- Important! Hold the suspension strut while unscrewing the fastening bolts. Nissan Leaf ZE0

21

Remove the suspension strut.



22

Set the shock absorber strut on the spring compressor tool.



Replacement: coil springs – Nissan Leaf ZE0. Professionals recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

23 Compress the spring.



24 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.



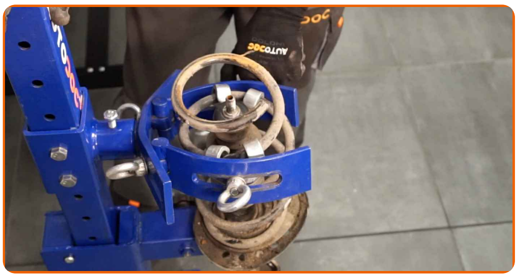
25 Remove the strut piston rod nut. Use HEX No.H6. Use a drive socket #18. Use a ratchet wrench.



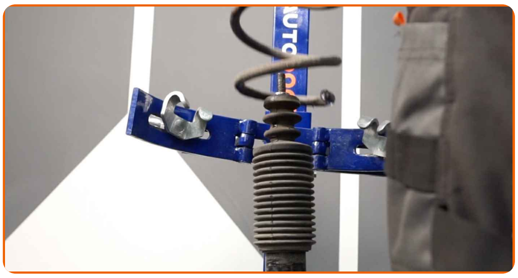
26 Remove the top strut mount.



27 Release the coil spring.



28 Remove the spring.



AUTODOC recommends:

- Replacement: coil springs – Nissan Leaf ZE0. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

29 Install the spring on the shock absorber.



30 Compress the spring.



31 Install the upper strut mount and the strut mount bearing.



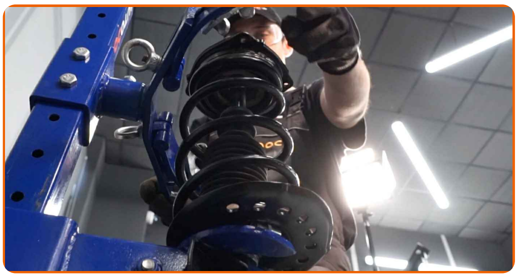
32 Tighten the shock strut piston rod nut. Use a drive socket #18. Use HEX No.H6. Use a torque wrench. Tighten it to 68 Nm torque.



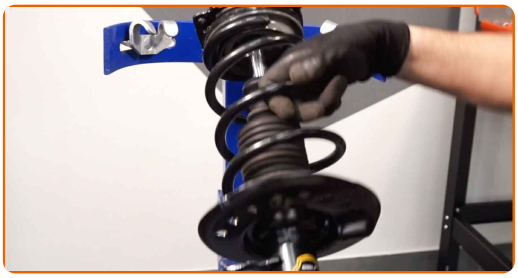
Replacement: coil springs – Nissan Leaf ZE0. AUTODOC recommends:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

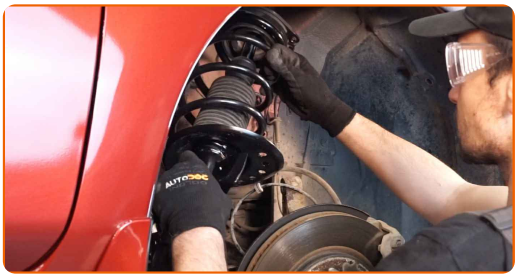
33 Decompress the spring.



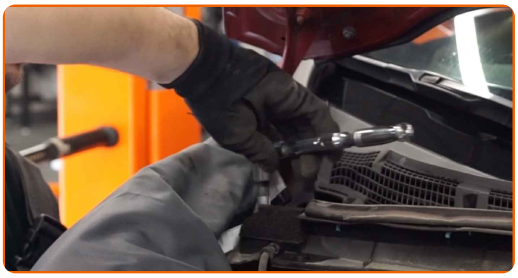
34 Remove the assembled shock strut.



35 Install the shock strut into the wheel arch.



36 Screw the top fastening of the shock strut mount. Do not tighten it.



Replacement: coil springs – Nissan Leaf ZE0. Tip from AUTODOC experts:

- To avoid injuries, hold the shock strut when screwing the fastening bolts in.

37 Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.



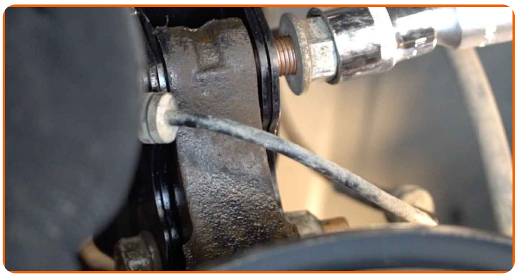
38 Fix the shock absorber strut on the steering knuckle.



39 Install the fastening bolts.



40 Screw in the fastener that connects the shock strut to the steering knuckle. Use a drive socket #21. Use a combination spanner #21.



41 Remove the support from under the steering knuckle.



AUTODOC recommends:

- Replacement: coil springs – Nissan Leaf ZE0. Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

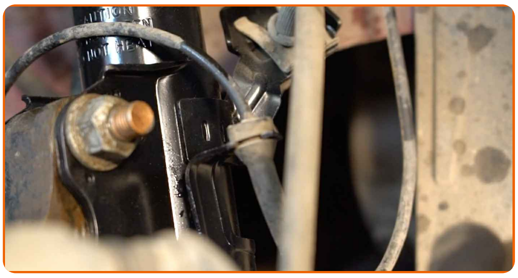
42 Install the transverse stabilizer link. Use a drive socket #18.



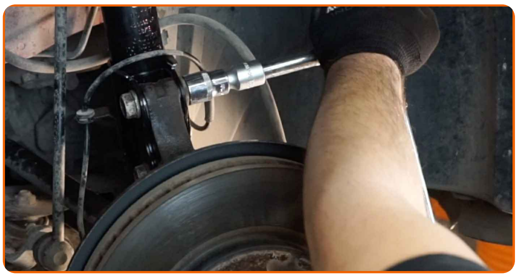
43 Fasten the brake hose on the strut. Connect the fastener of the ABS sensor cable to the shock absorber strut.



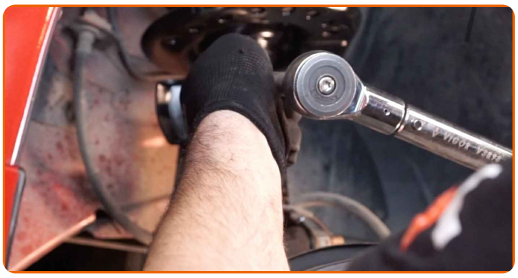
44 Install the brake hose retaining clip. Use a rubber mallet.



45 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #21. Use a drive socket #21. Use a torque wrench. Tighten it to 165 Nm torque.



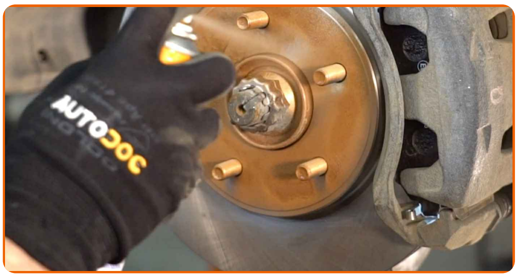
46 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a torque wrench. Tighten it to 65 Nm torque.



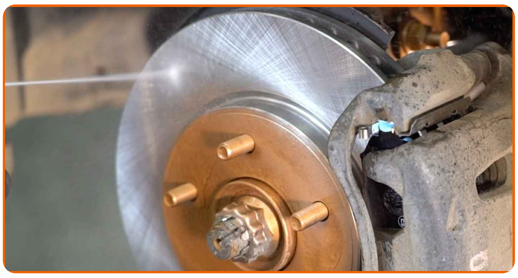
47 Treat the shock strut fasteners. Use copper grease.



48 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



49 Clean the brake disk surface. Use a brake cleaner.



Replacement: coil springs – Nissan Leaf ZE0. Tip from AUTODOC:

- After applying the spray, wait a few minutes.

50 Screw in the wheel bolts. Use wheel impact socket #21.



AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. Nissan Leaf ZE0

51 Lower the car.



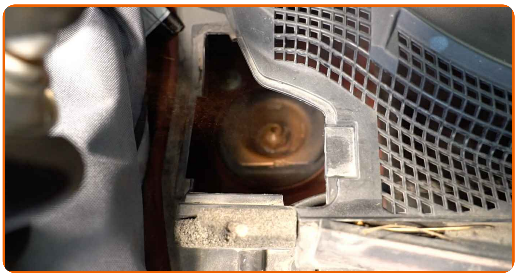
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Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 16 nm torque.



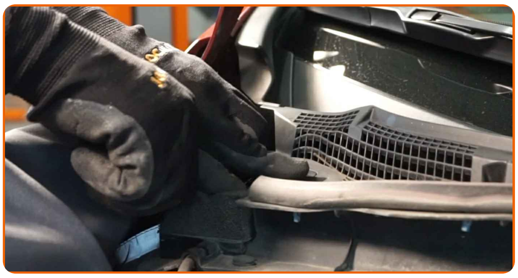
53

Treat the shock strut fasteners. Use copper grease.



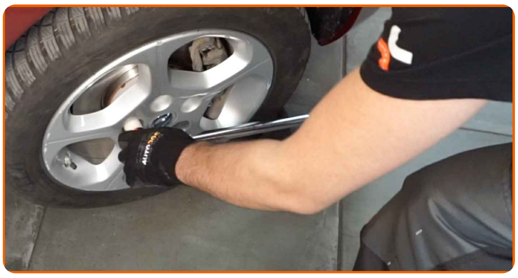
54

Install and secure the cowl grille.

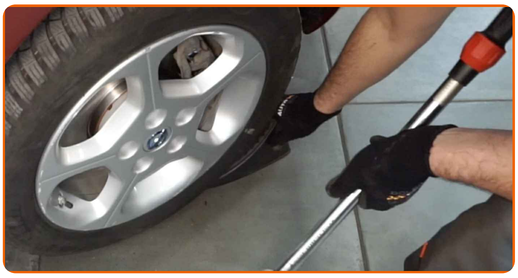


55

Tighten the wheel bolts using a criss-cross pattern. Use a torque wrench. Tighten it to 108 Nm torque.



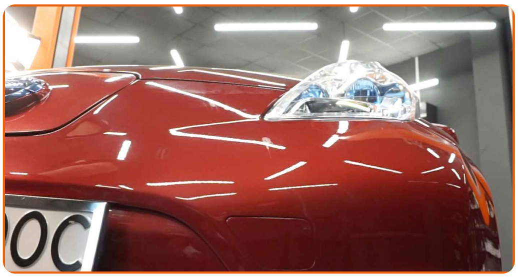
56 Remove the jacks and chocks.



57 Remove the fender protection cover.



58 Close the hood.

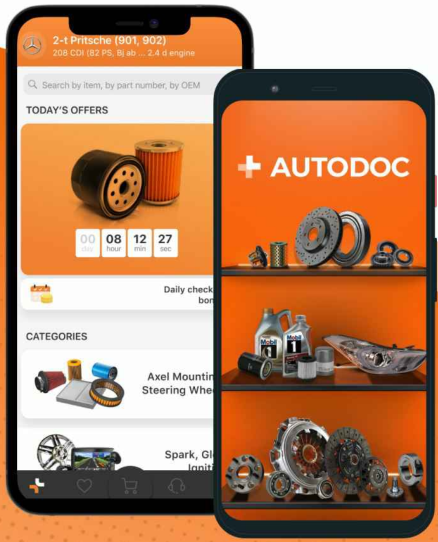


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